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FIGURE 1

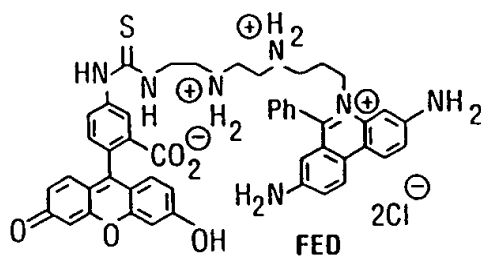
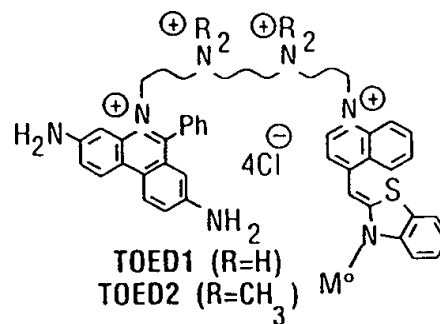
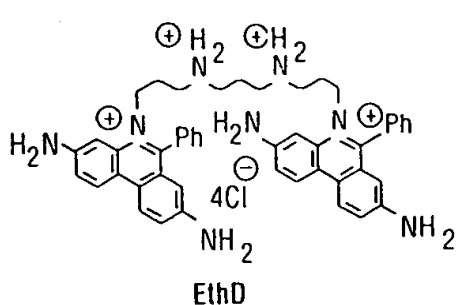
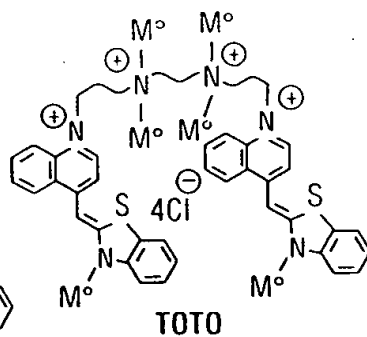
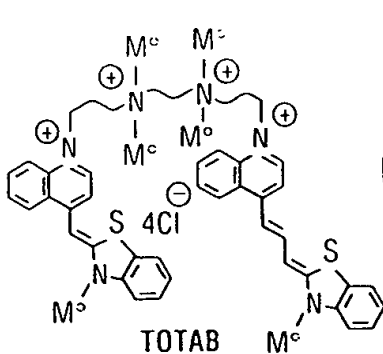
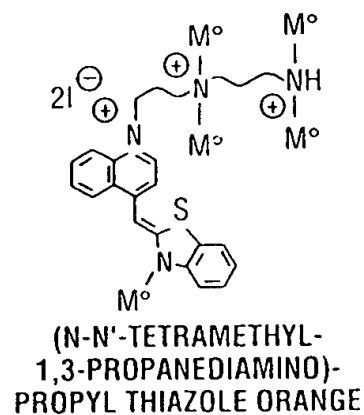
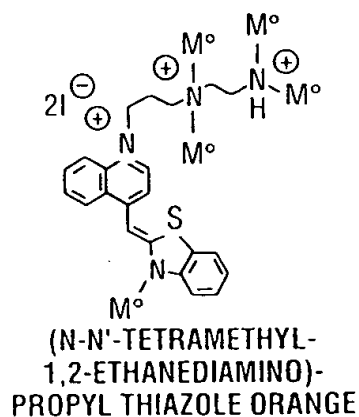
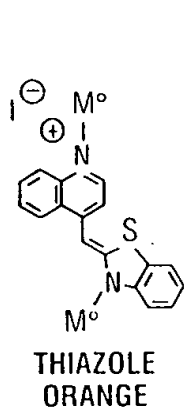
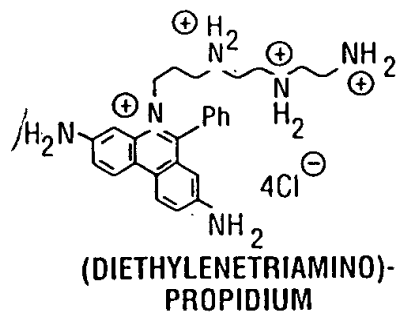
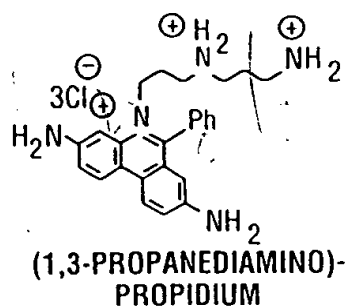
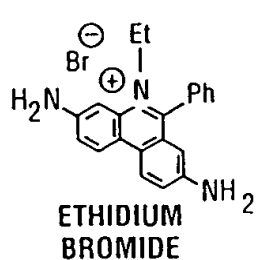


FIGURE 2

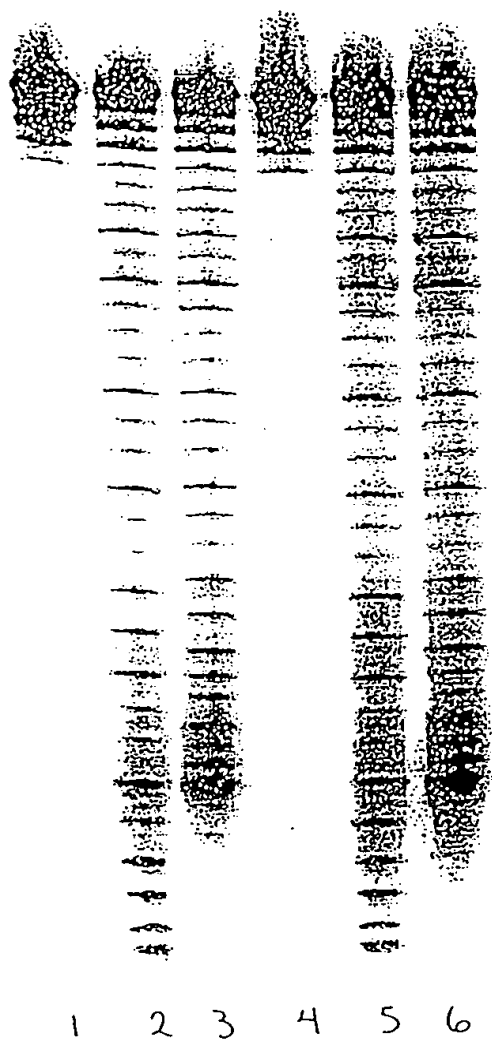


FIGURE 3

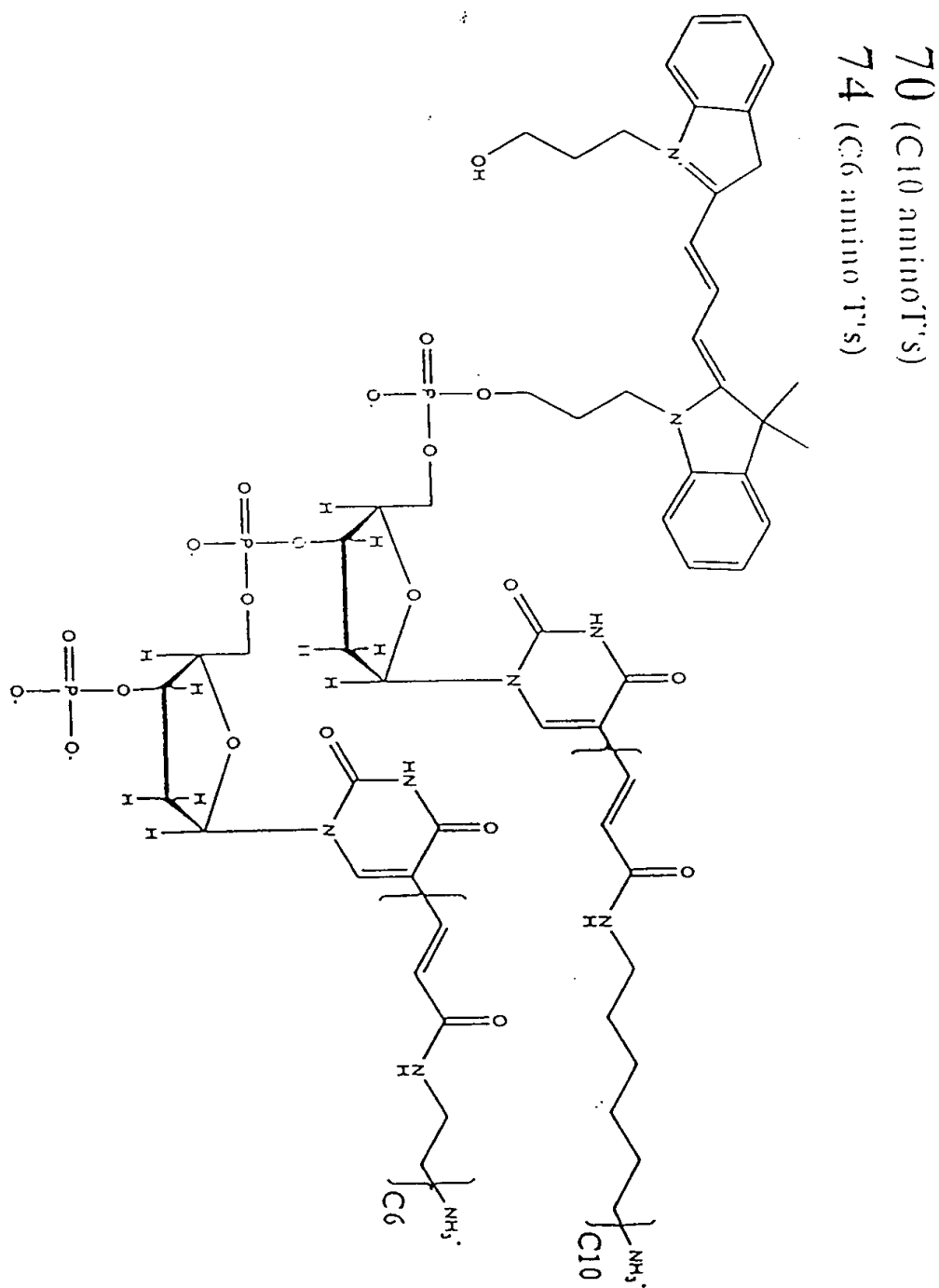
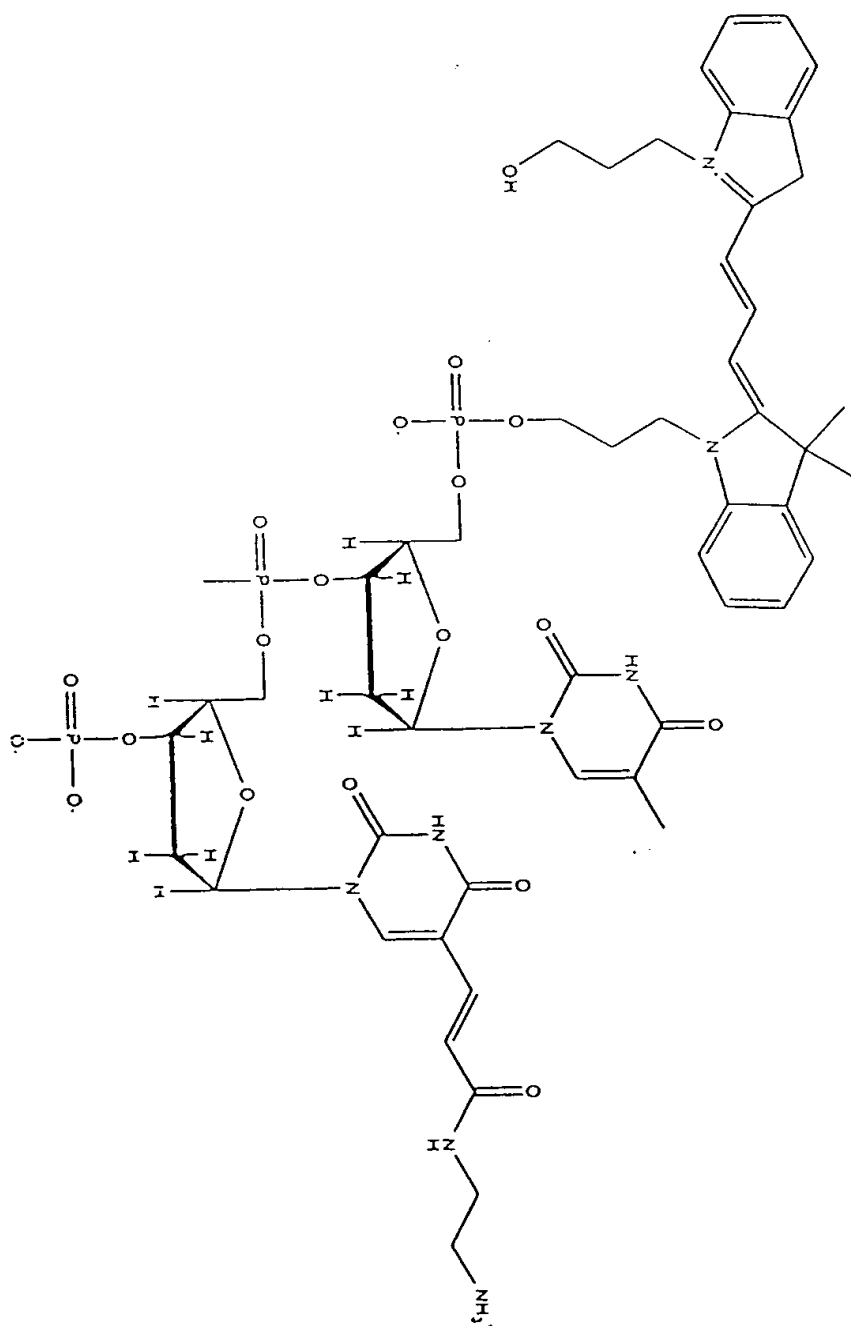
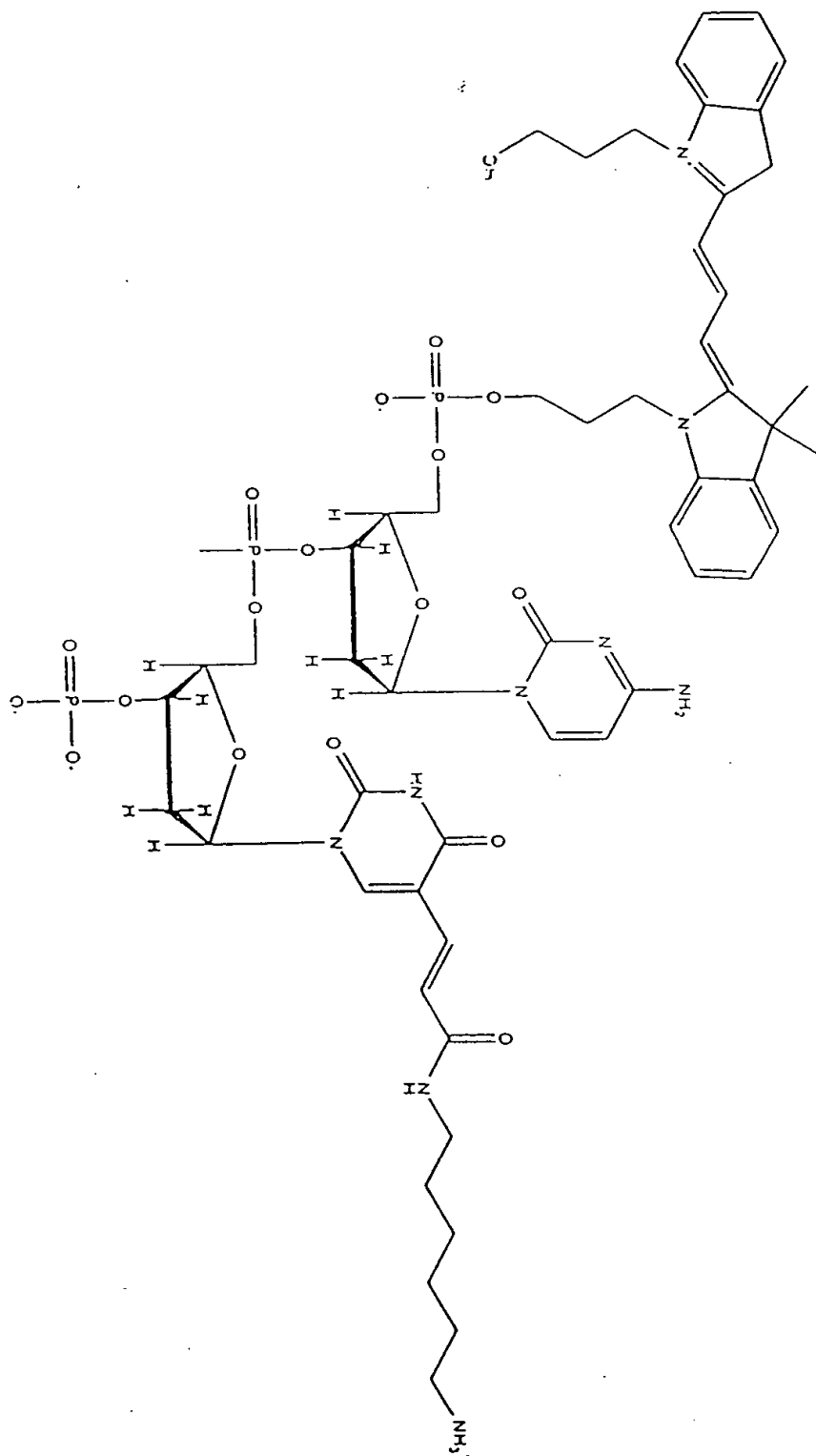


FIGURE 4a



75

FIGURE 4b



76

FIGURE 5

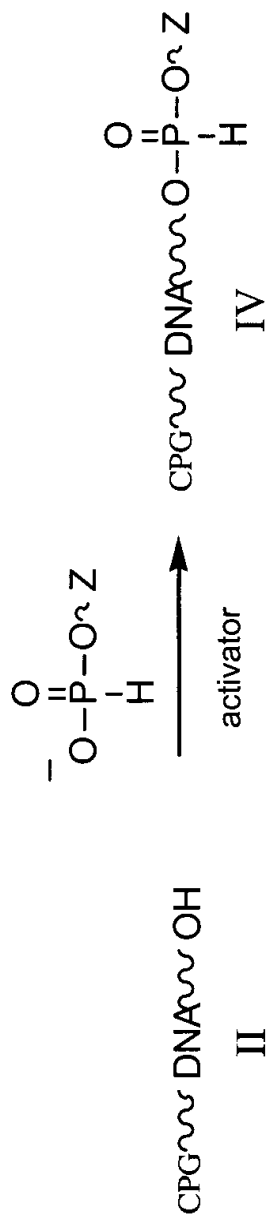
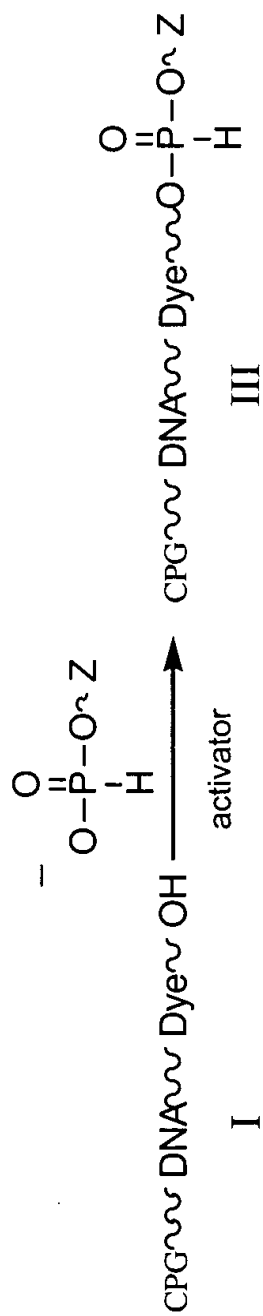
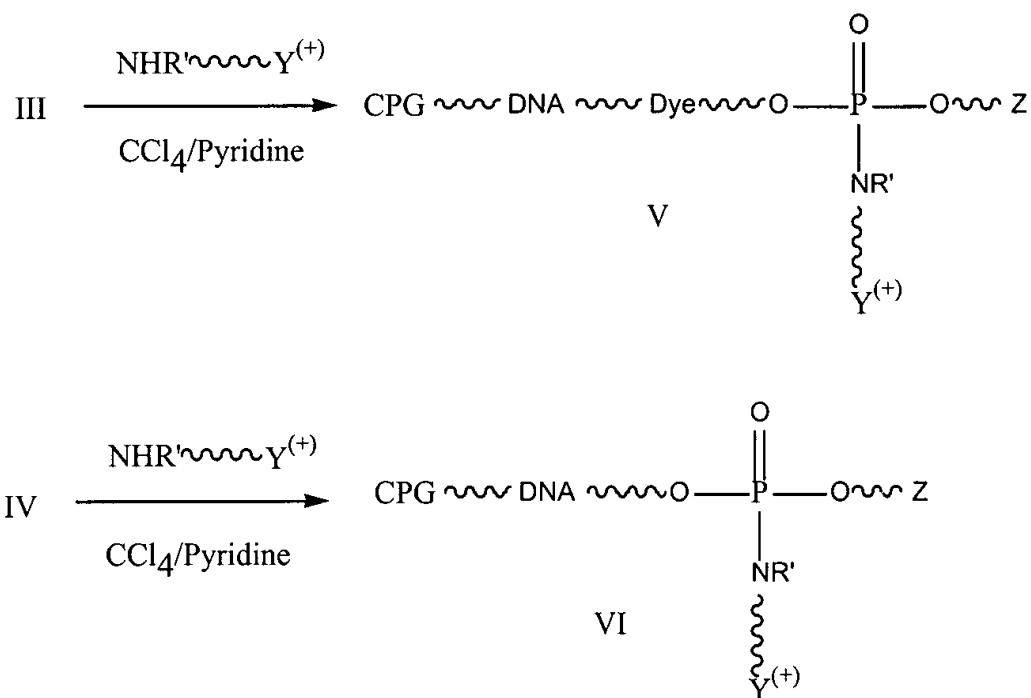


FIGURE 6



$Y^{(+)}$ = organic group capable to introduce positive charge

FIGURE 7

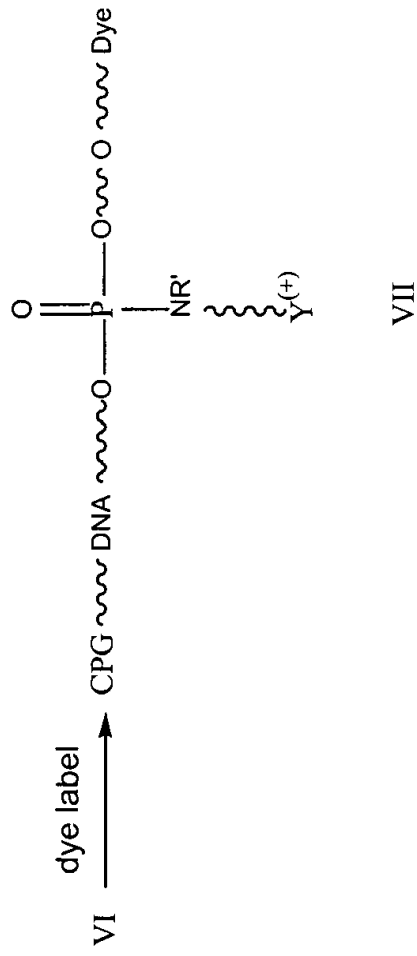
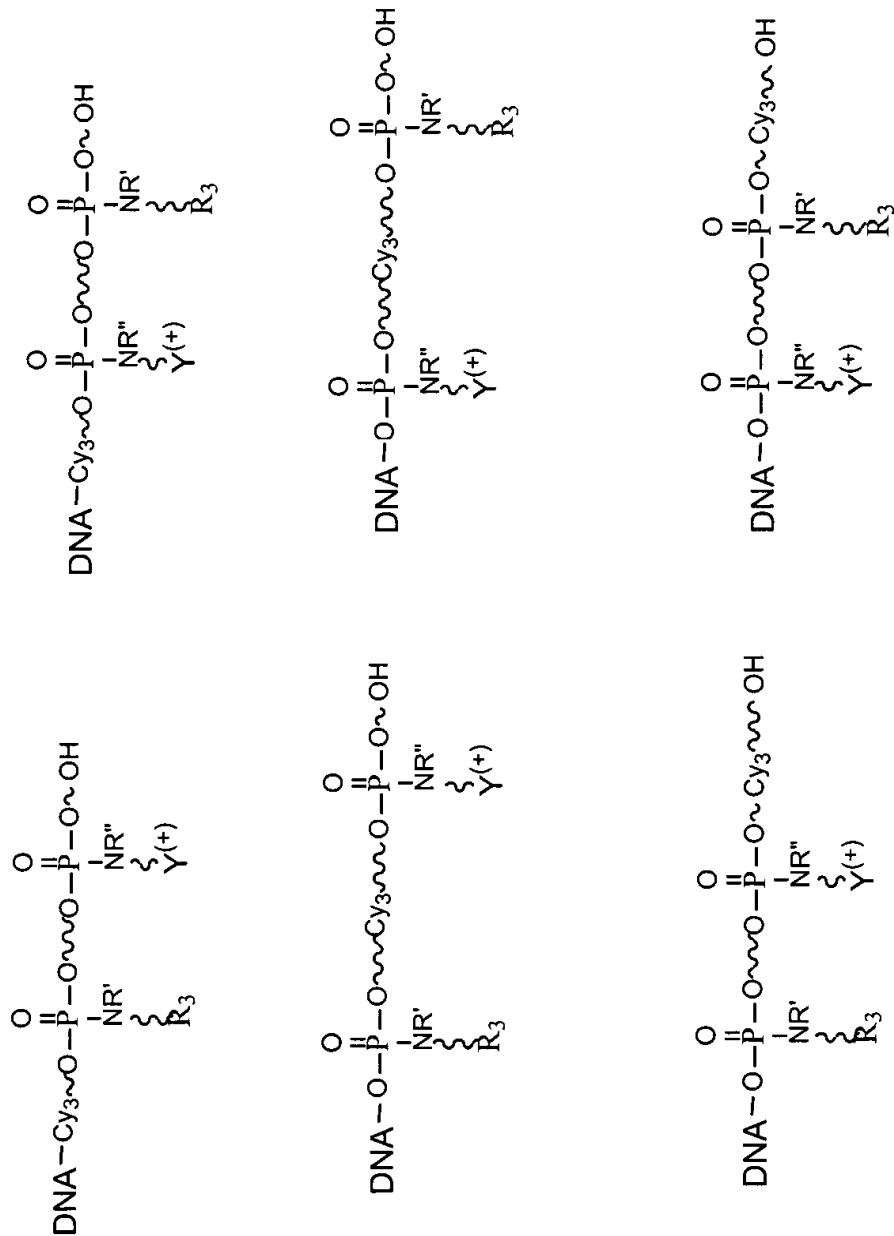


FIGURE 8



R', R'', R3 = H, alkyl, aryl

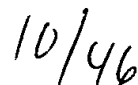
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FIGURE 10

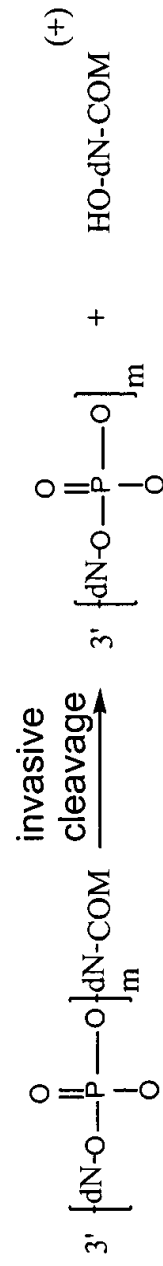
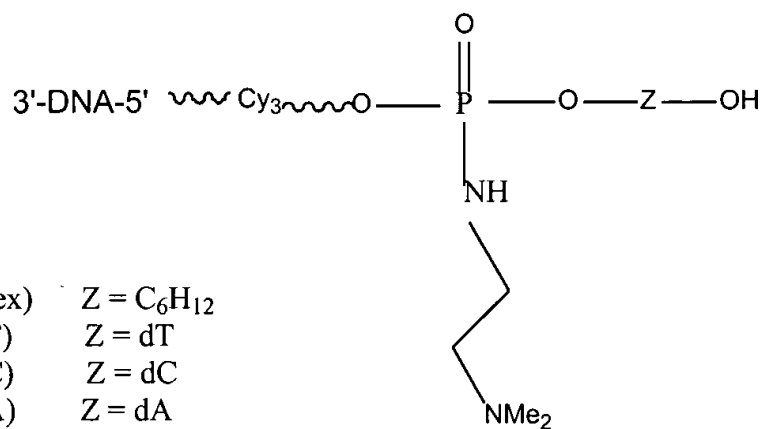
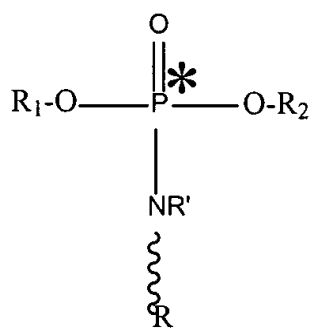


FIGURE 11



V-(Hex)	Z = C ₆ H ₁₂
V-(dT)	Z = dT
V-(dC)	Z = dC
V-(dA)	Z = dA
V-(dG)	Z = dG

FIGURE 12



chiral phosphoramidate phosphorus atom

FIGURE 13

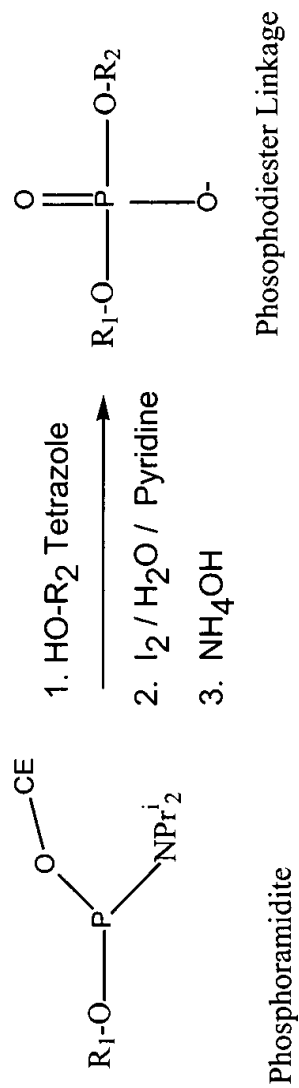
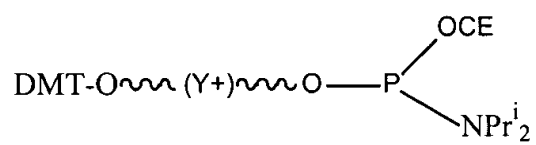


FIGURE 14

A.



B.

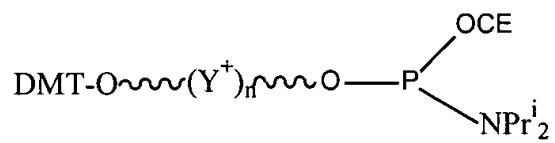
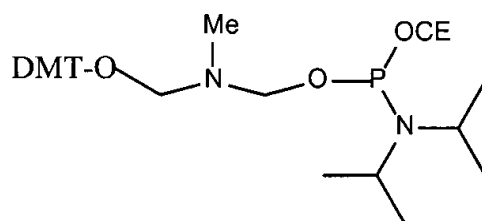


FIGURE 15

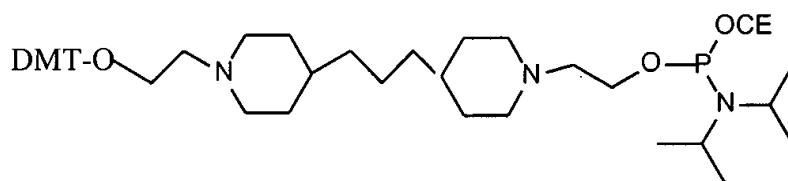
- A.
$$\begin{array}{cc} (0) & (+1) \\ 3'\text{-DNA} - (\text{DP}) - (\text{PCP}) \end{array}$$
- B.
$$\begin{array}{ccc} (0) & (0) & (+1) \\ 3'\text{-DNA} - (\text{DP}) - (\text{NP})_n - (\text{PCP}) \end{array}$$
- C.
$$\begin{array}{ccc} (0) & (-1) & (+1) \\ 3'\text{-DNA} - (\text{DP}) - (\text{PBB})_n - (\text{PCP})_{(n+1)} \end{array}$$
- D.
$$\begin{array}{cccc} (0) & (-1) & (+1) & (0) \\ 3'\text{-DNA} - (\text{DP}) - (\text{PBB})_n - (\text{PCP})_{(n+1)} - (\text{NP})_m \end{array}$$

FIGURE 16



Neutral Phosphoramidite

Net Charge : 0



Positively Charged Phosphoramidite

Net Charge : +1

FIGURE 18

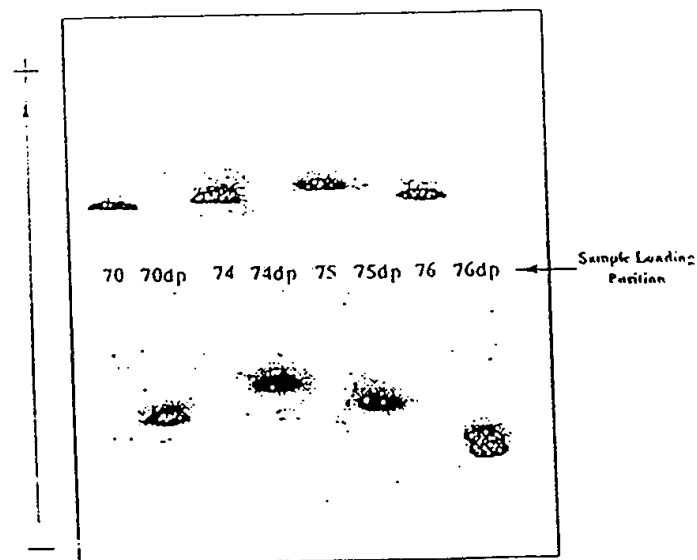
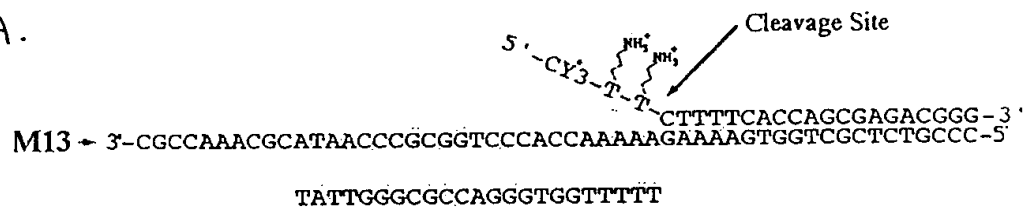


FIGURE 19

A.



B.

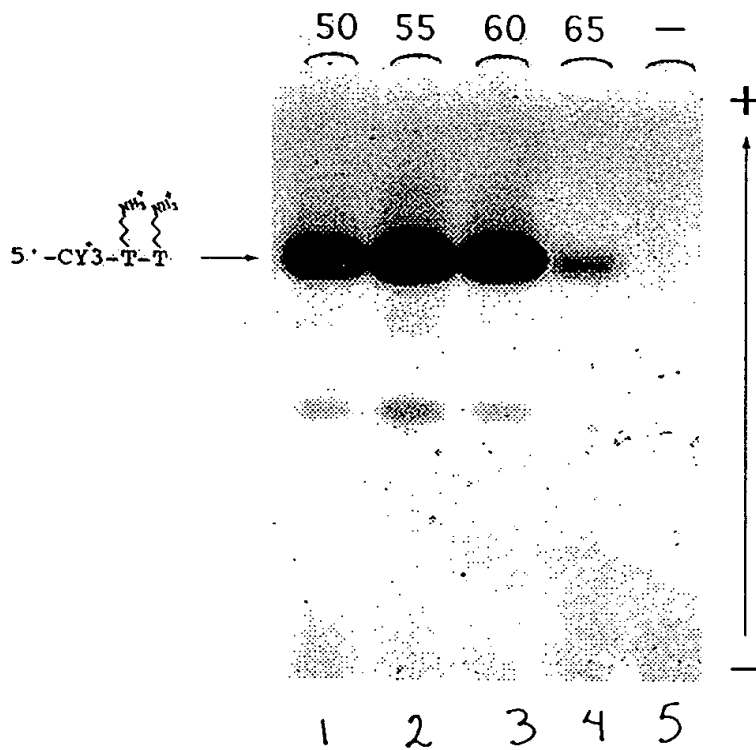


FIGURE 20

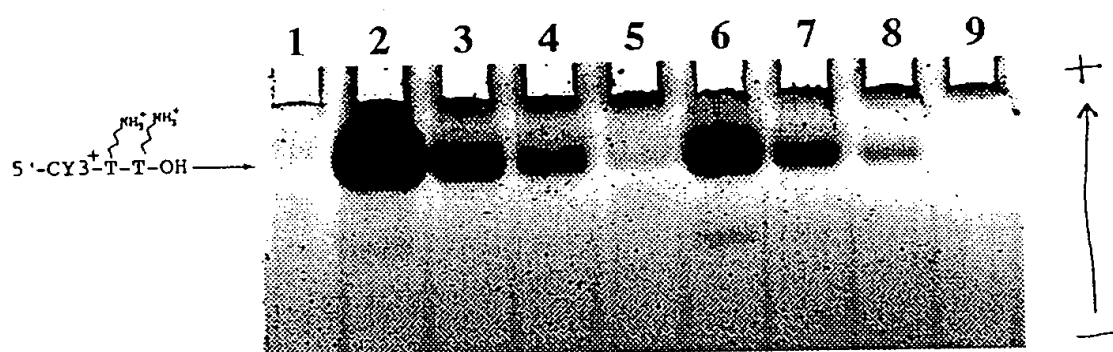


FIGURE 21

A

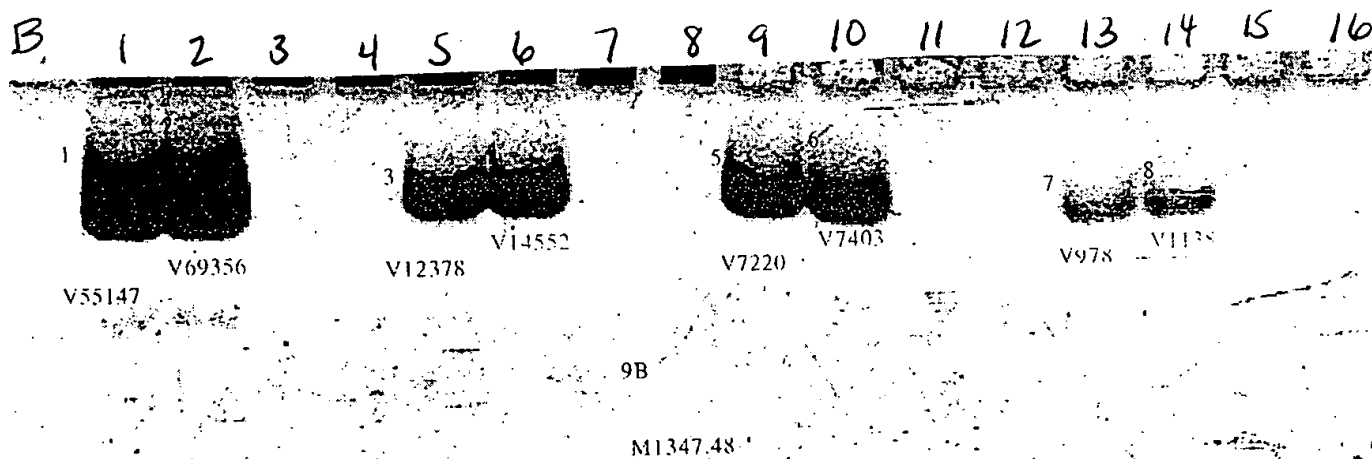
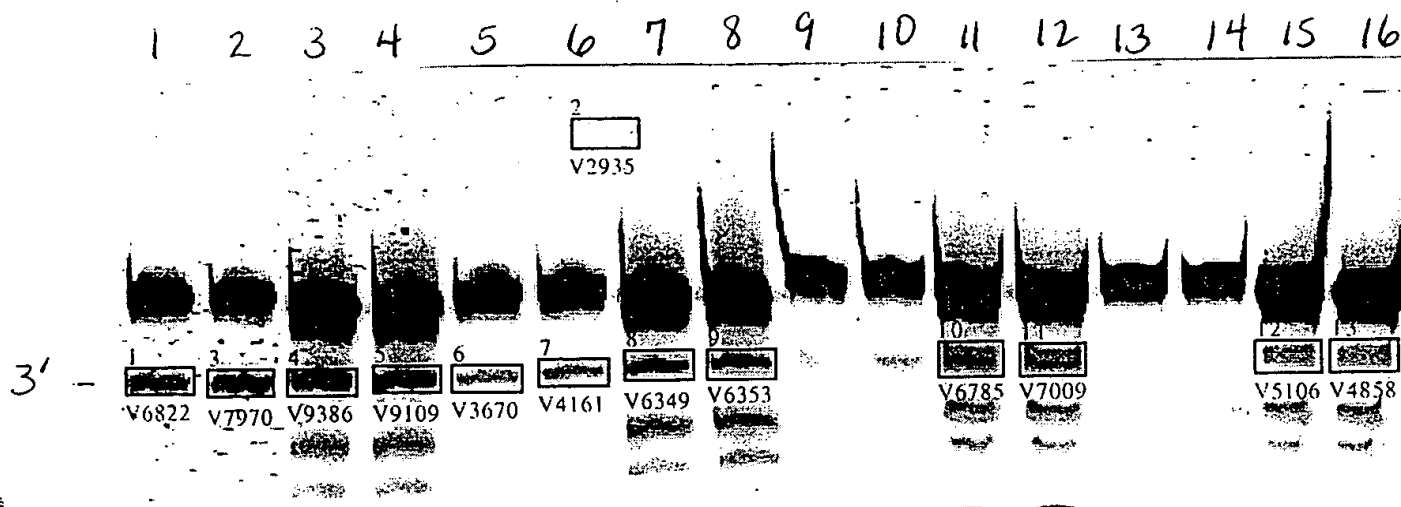


FIGURE 22

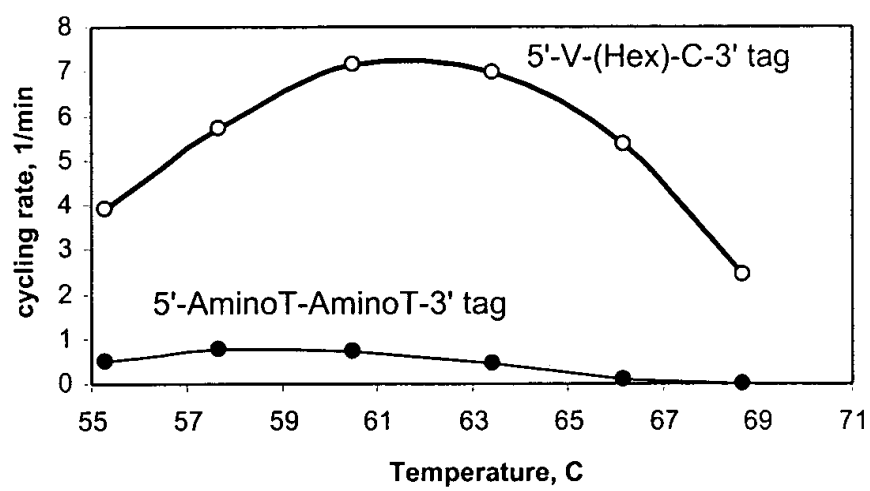
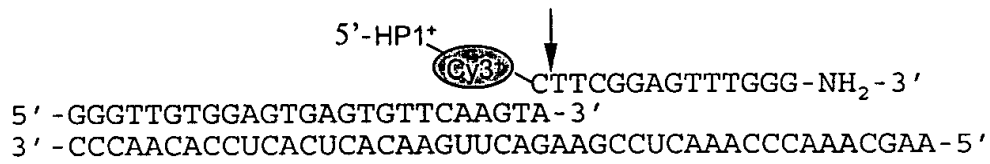


FIGURE 23

A.



B.

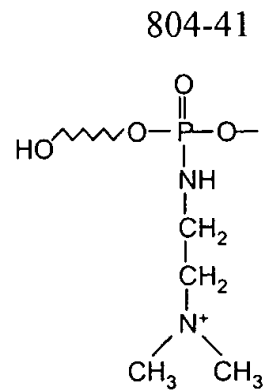
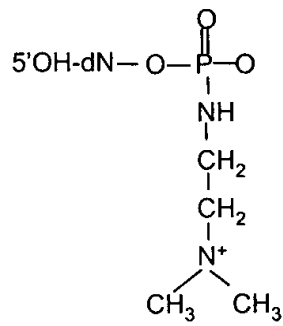


FIGURE 24A

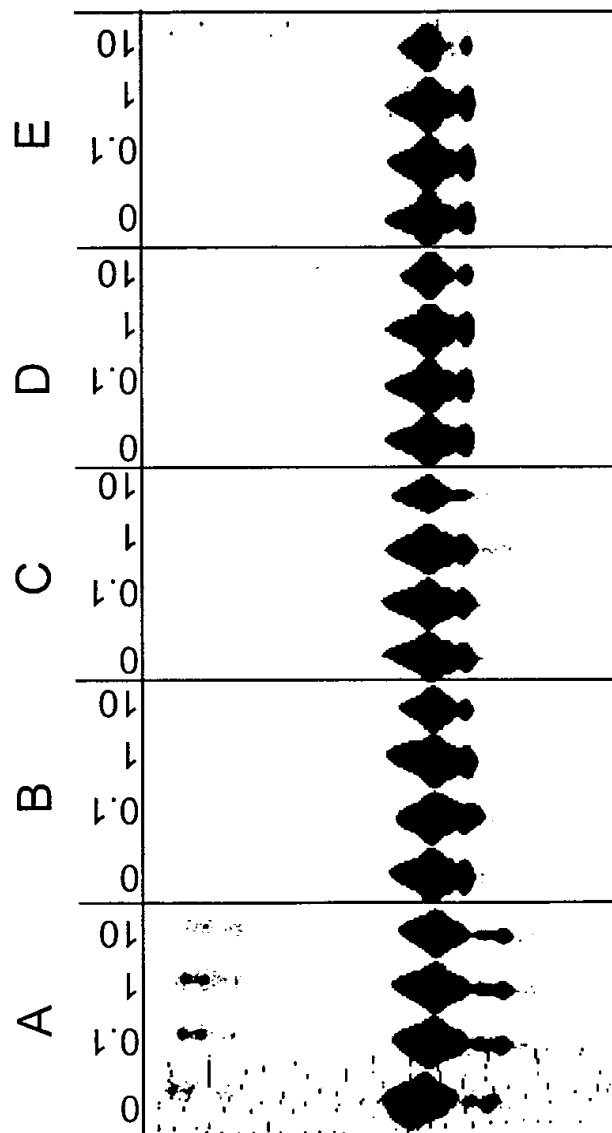


FIGURE 24B

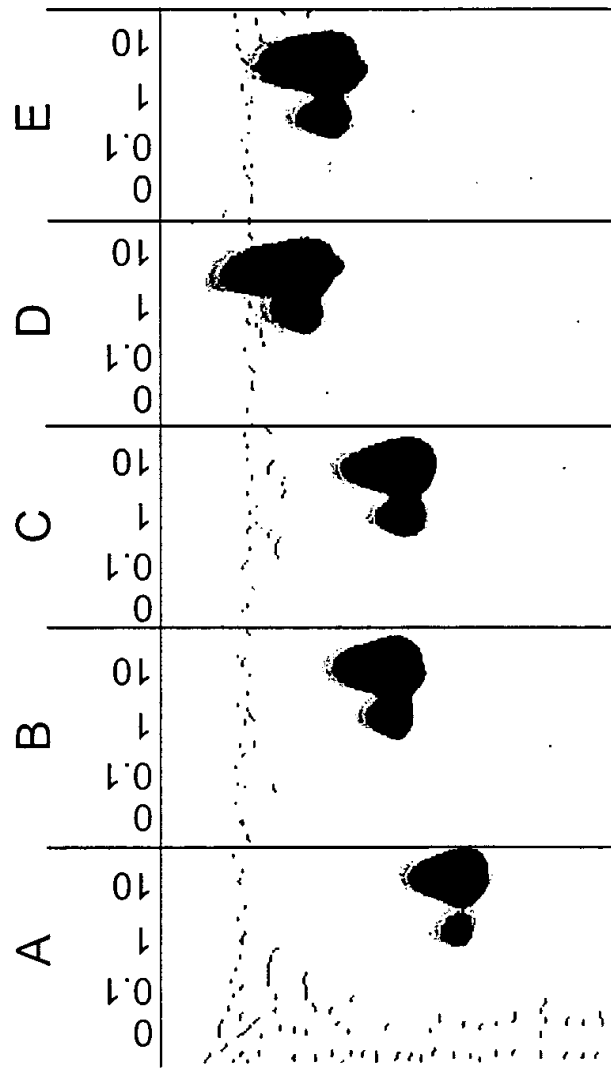


FIGURE 25

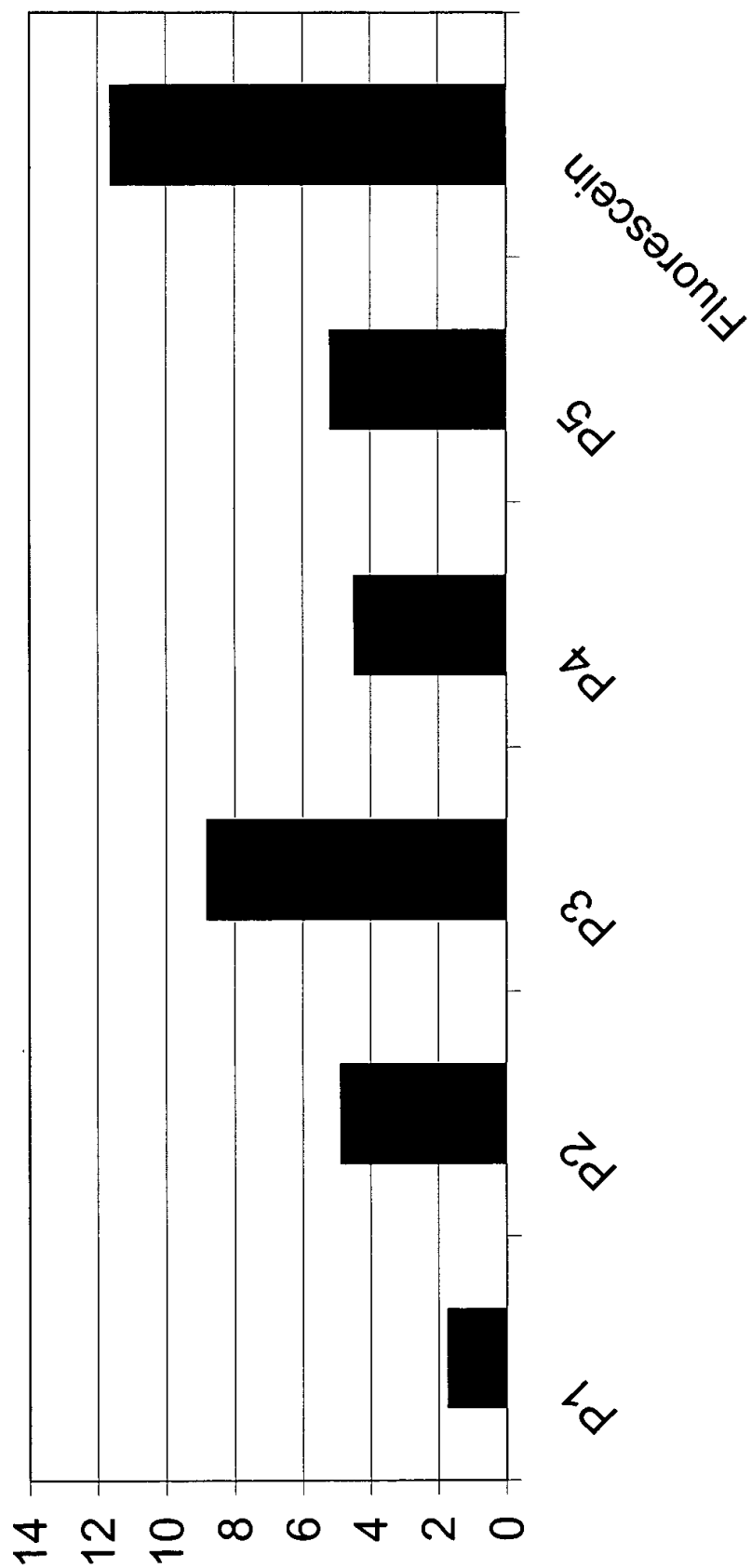


FIGURE 26A

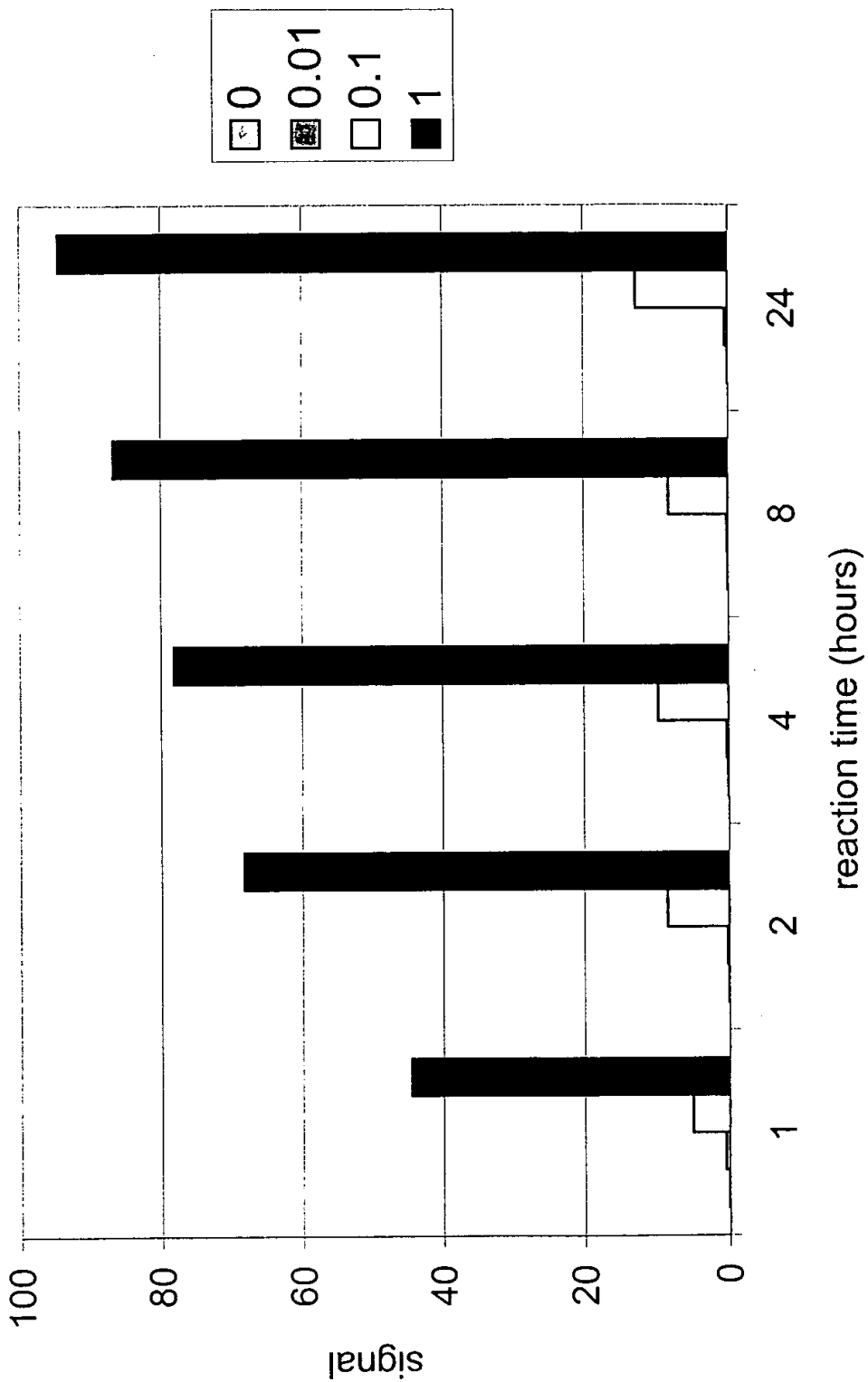


FIGURE 26B

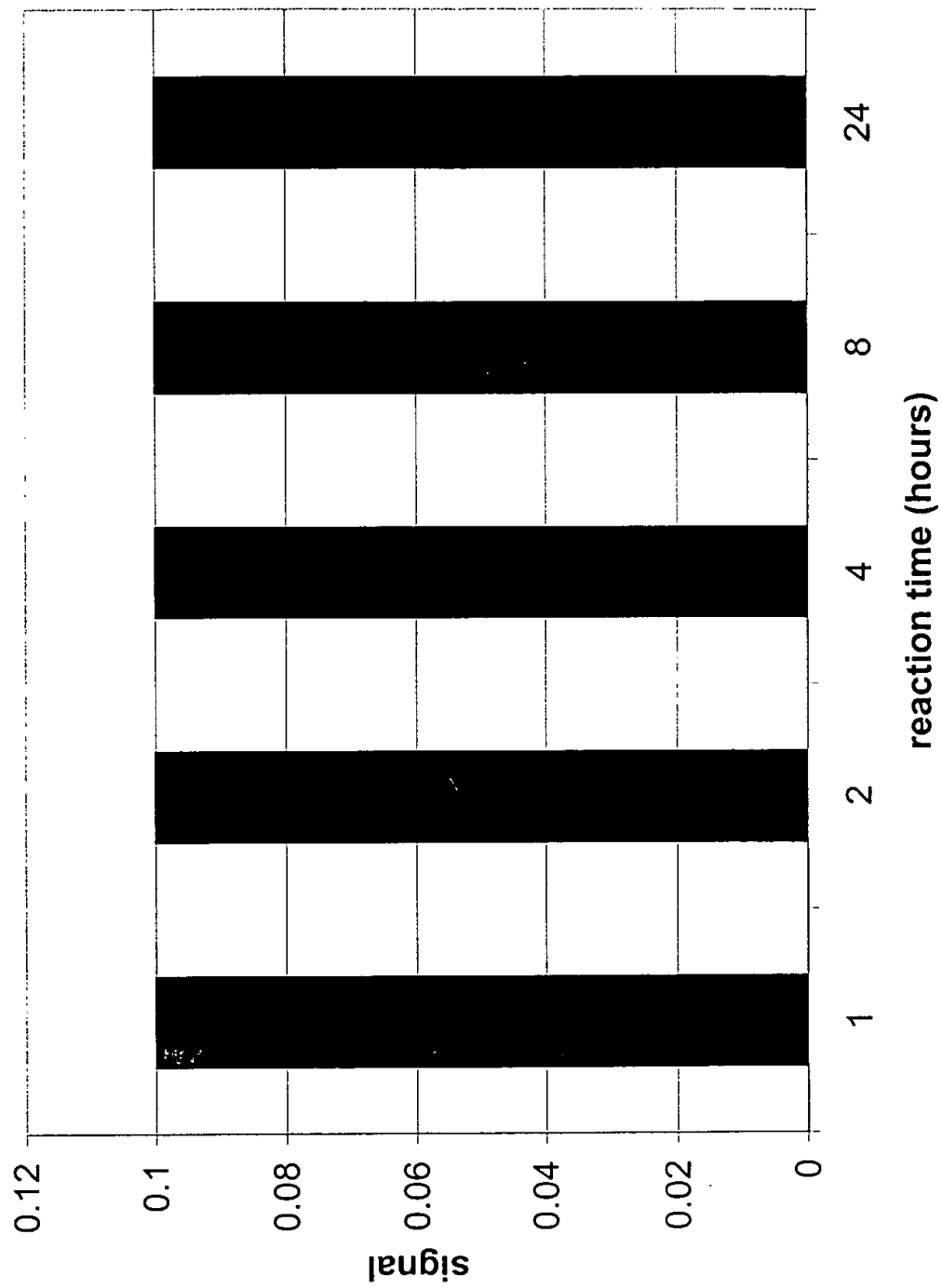


FIGURE 27

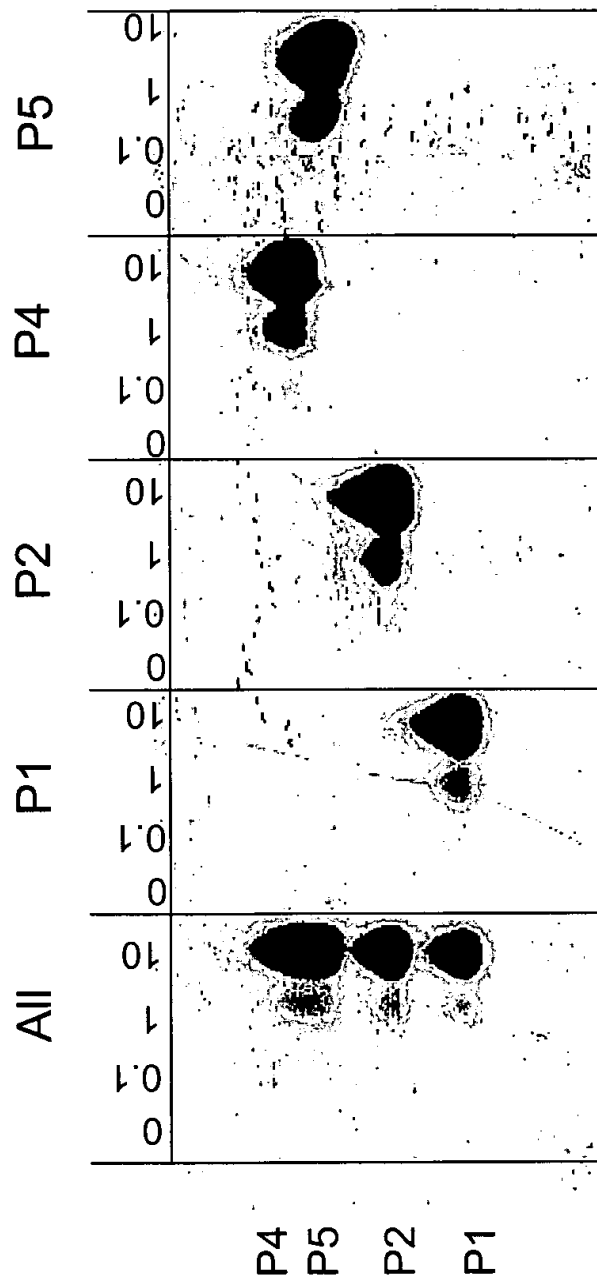
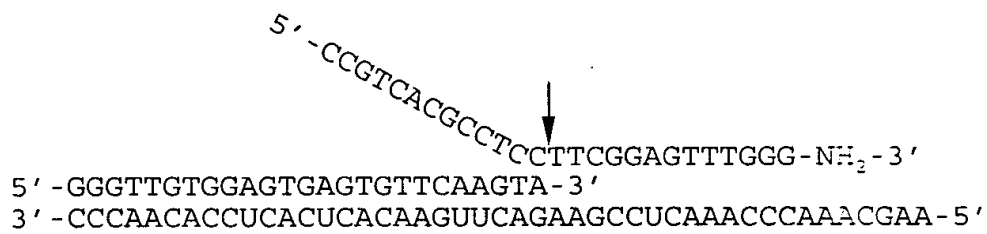
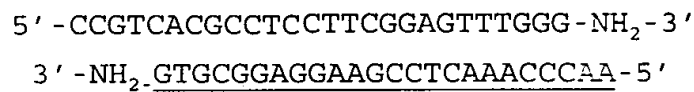


FIGURE 28A

Primary reaction



Human MCP-1 mRNA



Secondary reaction

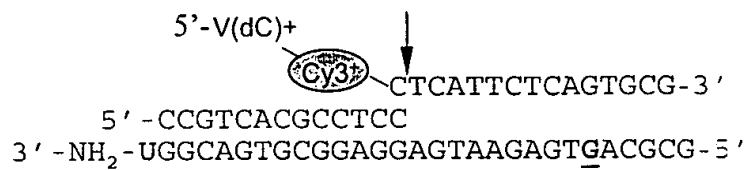
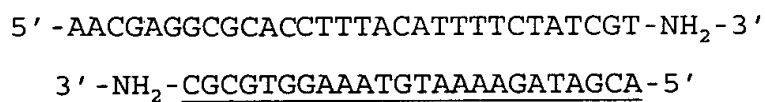


FIGURE 28B

Primary reaction



Human Ubiquitin mRNA



Secondary reaction

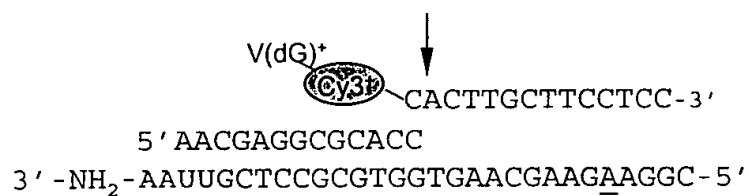


FIGURE 29

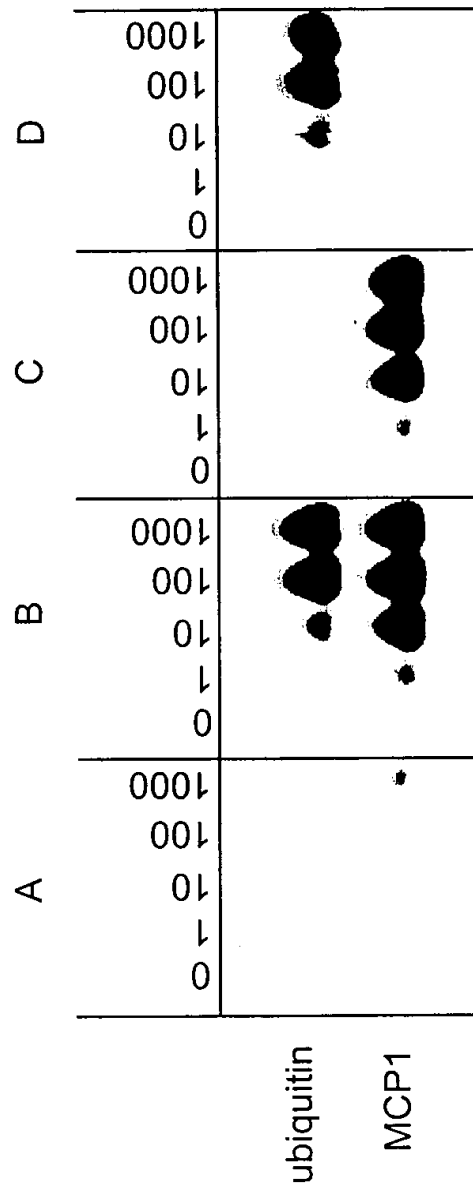


FIGURE 30A

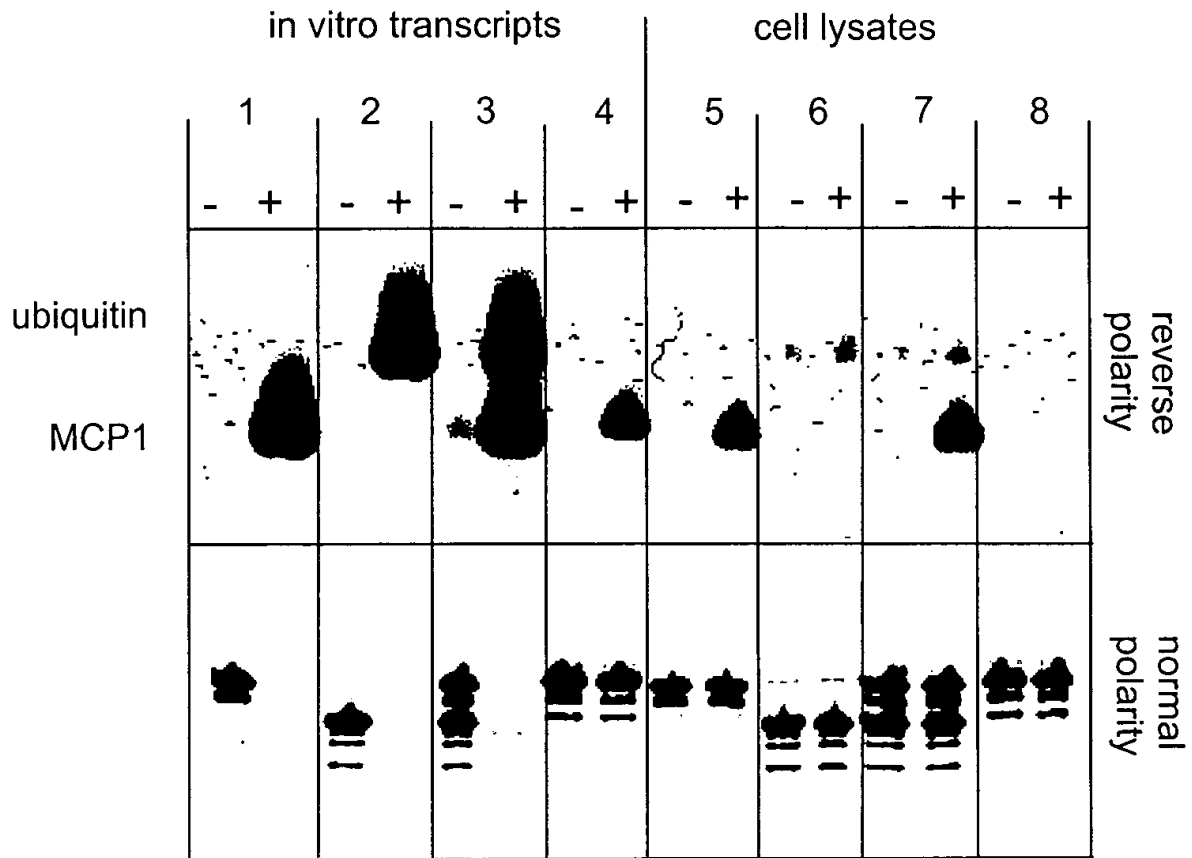
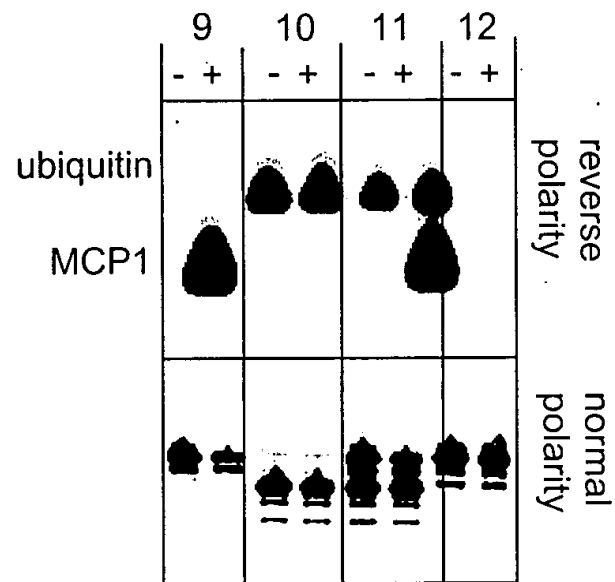


FIGURE 30B



764/92

705000 = 3674.42

FIGURE 31

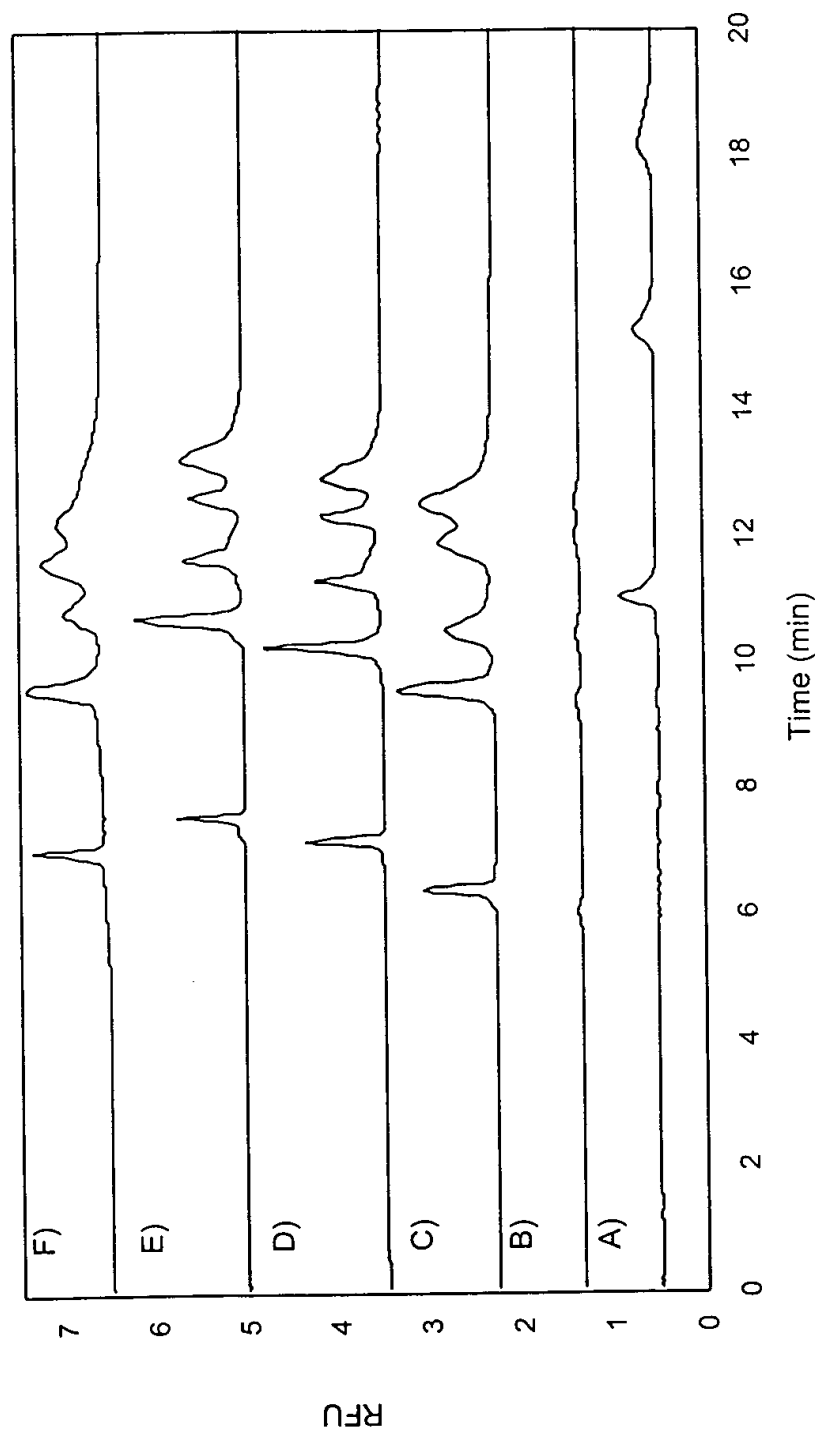


FIGURE 32

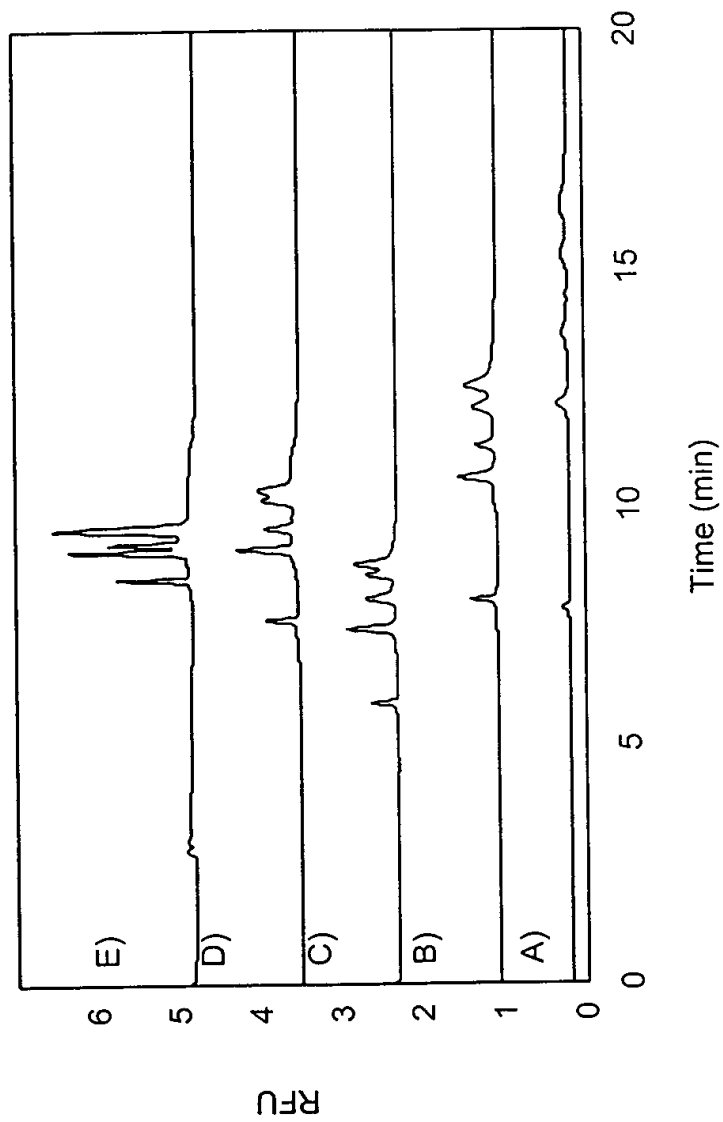


FIGURE 33

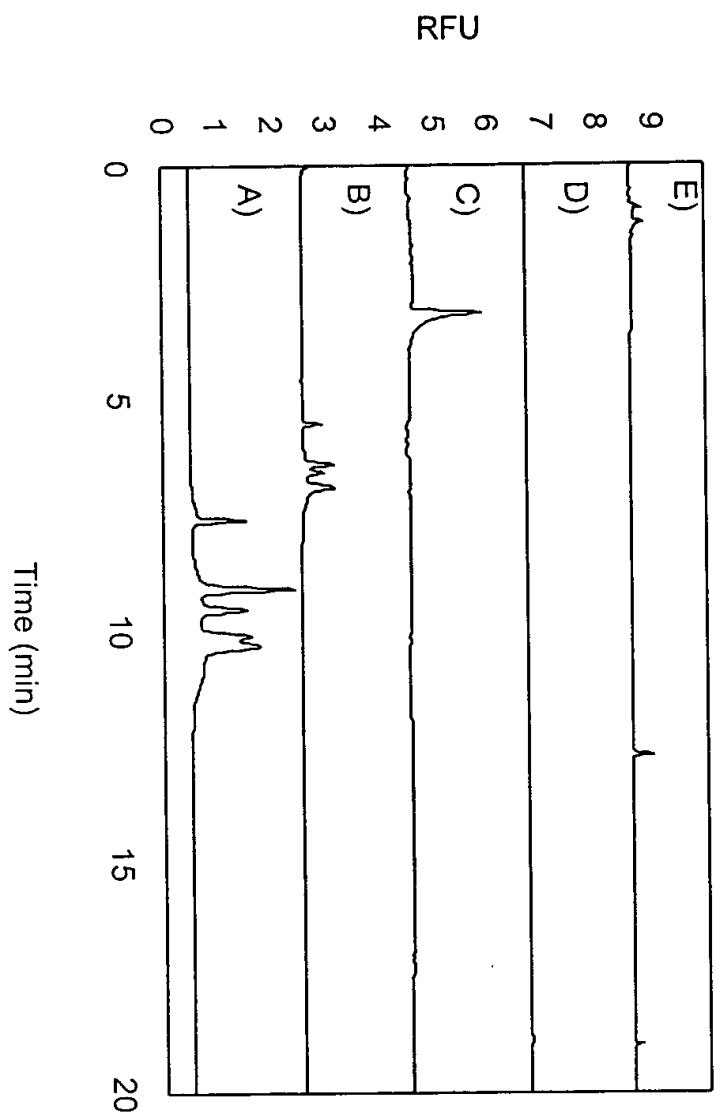


FIGURE 34

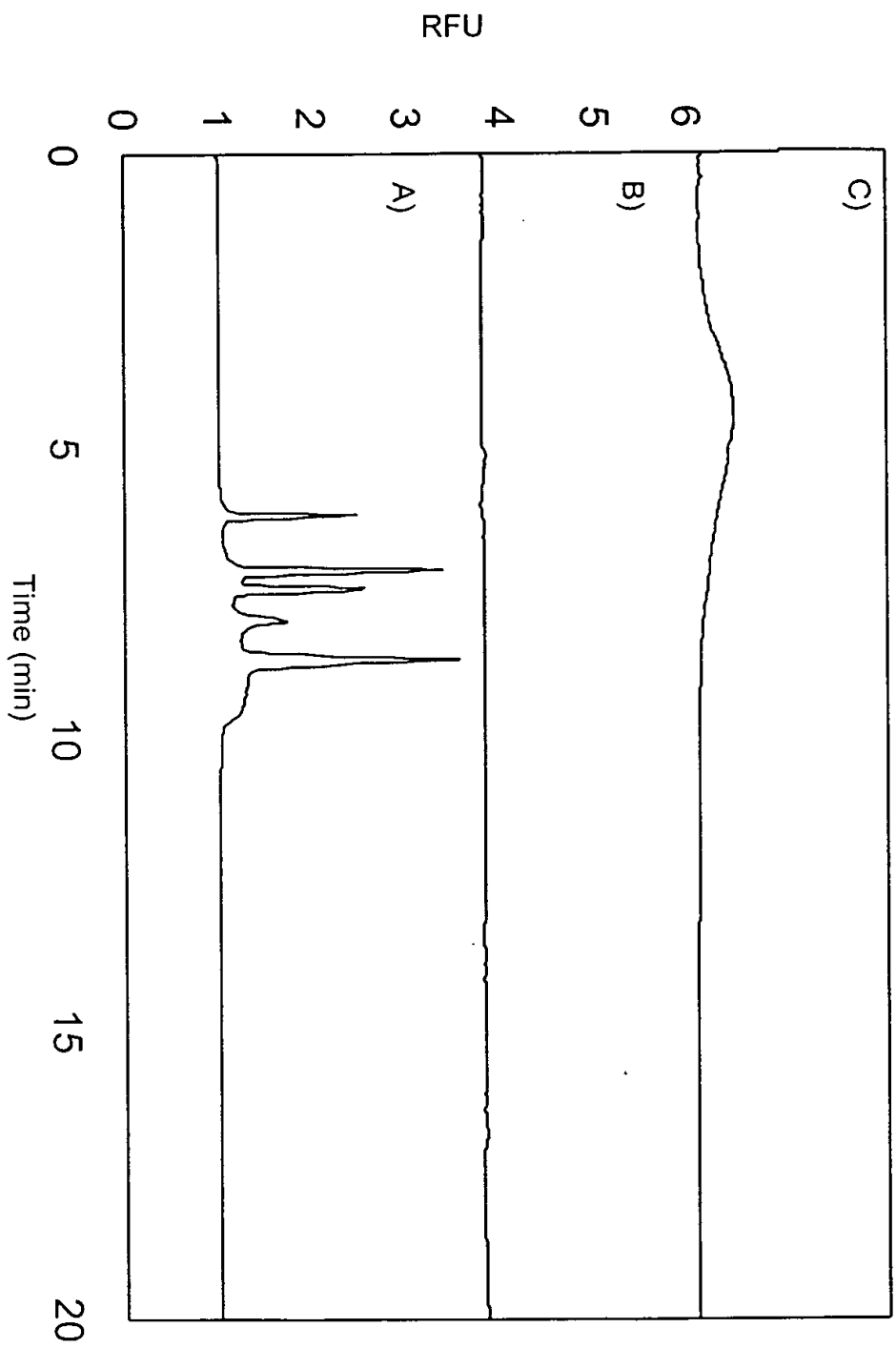


FIGURE 35

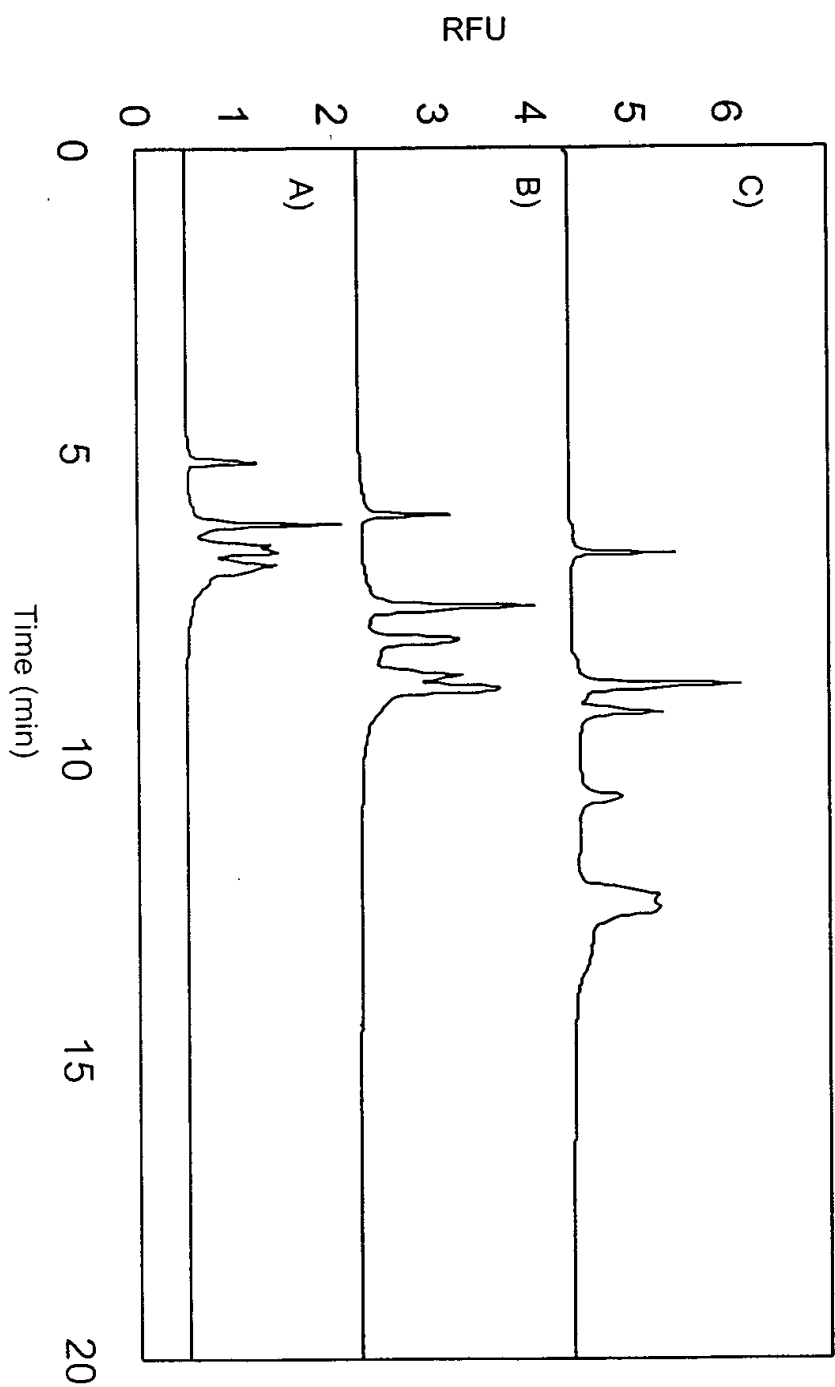
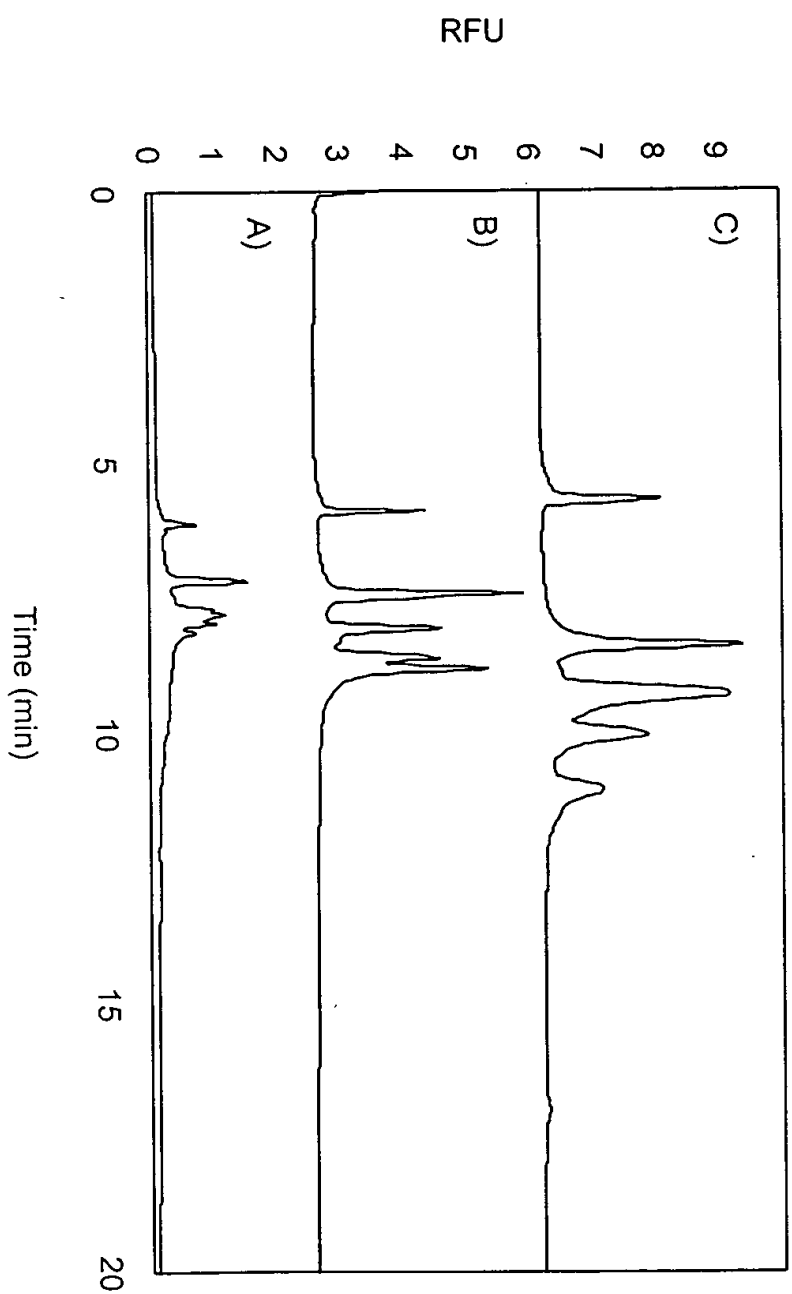


FIGURE 36



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Figure 1 is a multi-panel chromatogram showing the fluorescence response (RFU) over time (min) for eight different samples, labeled A through H. The y-axis represents RFU, ranging from 0 to 9. The x-axis represents Time (min), ranging from 0 to 20. The chromatograms are stacked vertically, with H at the top and A at the bottom.

- Sample A:** Shows a broad peak around 4-5 minutes, reaching an RFU of approximately 1.5.
- Sample B:** Shows a broad peak around 4-5 minutes, reaching an RFU of approximately 2.5.
- Sample C:** Shows a small peak around 4 minutes, reaching an RFU of approximately 3.5.
- Sample D:** Shows a small peak around 4 minutes, reaching an RFU of approximately 4.5.
- Sample E:** Shows a small peak around 4 minutes, reaching an RFU of approximately 5.5.
- Sample F:** Shows a small peak around 4 minutes, reaching an RFU of approximately 6.5.
- Sample G:** Shows a small peak around 4 minutes, reaching an RFU of approximately 7.5.
- Sample H:** Shows a small peak around 4 minutes, reaching an RFU of approximately 8.5.

FIGURE 38

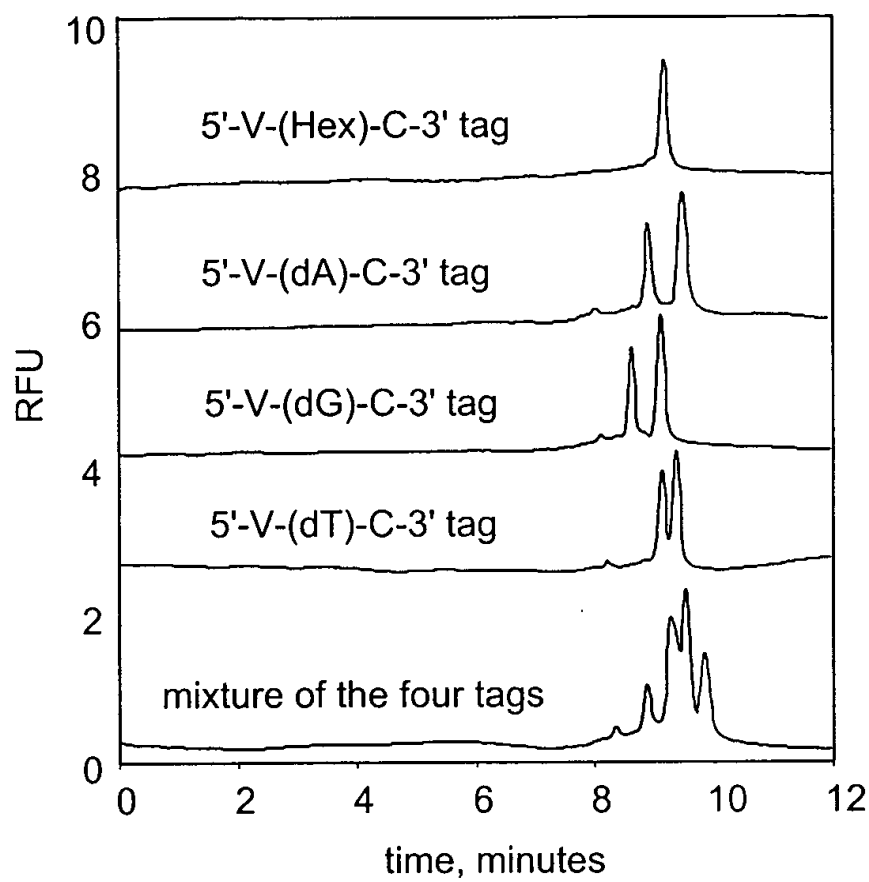


FIGURE 39

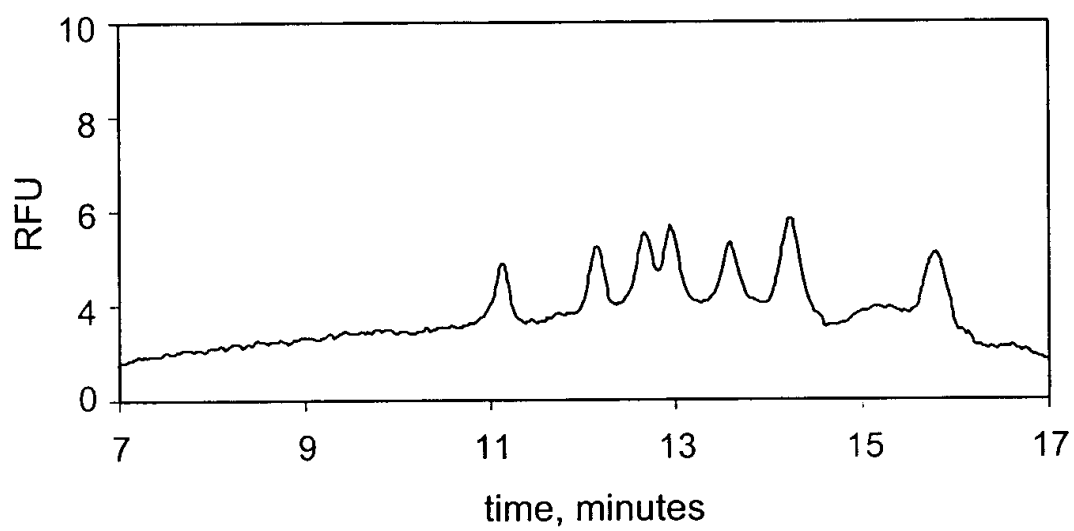
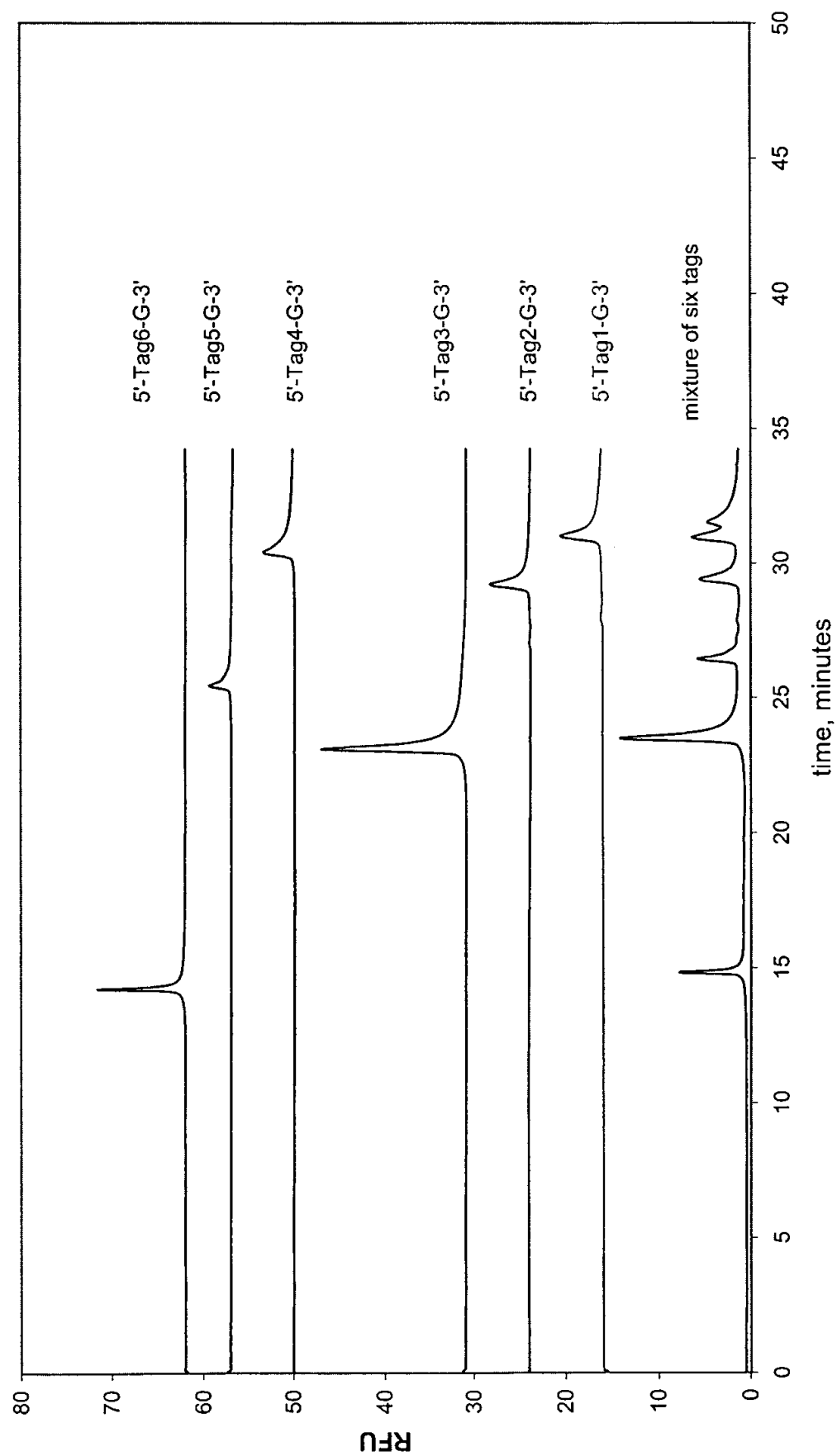


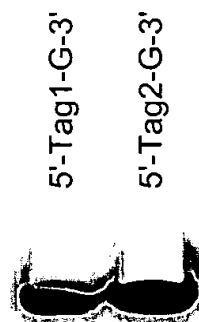
FIGURE 40



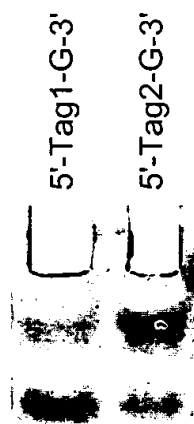
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FIGURE 41

A.



B.



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